

## 105.9 - Biomaterials (solid forms)

Biomaterials are materials that are applied for use in medical devices that require intimate contact with tissues and body fluids.

Technical Contact: [charles.guttman@nist.gov](mailto:charles.guttman@nist.gov)

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	2910a	8011	8012	8013	8385	8395	8396	8397	8456	8457
Description	Calcium Hydroxyapatite	Gold Nanoparticles, Nominal 10nm Diameter	Gold Nanoparticles, Nominal 30nm Diameter	Gold Nanoparticles, Nominal 60nm Diameter	Ultra-High Molecular Weight Polyethylene Wear Particles	Tissue Engineering Reference, Scaffold	Tissue Engineering Reference, Scaffold	Tissue Engineering Reference, Scaffold	Ultra High Molecular Weight Polyethylene	Ultra High Molecular Weight Polyethylene
Unit Size	(2 g)	(two 5 mL ampoules)	(two 5 mL ampoules)	(two 5 mL ampoules)	(5 ml)	(1 scaffold)	(1 scaffold)	(1 scaffold)	(each)	(each)
Properties	Calcium Phosphorus Ca/P Molar Ratio	Reference Values for Particle Size Information Values for Chemical and Electrochemical Properties	Reference Values for Particle Size Information Values for Chemical and Electrochemical Properties	Reference Values for Particle Size Information Values for Chemical and Electrochemical Properties	Reference Particle Size Populations Information Values for Diameter of the Packed Rounded UHMWPE Particles Information Values for Aspect Ratio and Length of the Packed Elongated UHMWPE Particles				Young's Modulus Yield Strength Ultimate Strength Elongation	Young's Modulus Yield Strength Ultimate Strength Elongation